

after it had last returned. I advised her to again increase the doses of strychnia.

This case illustrates the difficulties that will be met in obstinate cases, and shows clearly that in some of these there is really no paralysis, but simply an insufficient effort on the patient's part.

Case 5.—Miss D. M. D., æt. 29, came to me with the following history: Six years previously while suffering from an attack of pneumonia she had become hoarse and remained so for two days. The morning afterward she found herself unable to speak excepting in a whisper, and her voice had never since returned. Her grandparents and parents were long-lived, but a brother and sister were said to have had consumption. She had twice suffered from pneumonia.

I found her general health good, though she was not very strong. She complained of some pain in the right mammary region and of some shortness of breath on exertion, with an occasional attack of cough at night. The appetite was fair, and digestion normal. Pulse 100. There was no fever. She could talk only in a faint whisper. She complained of some pain in the larynx when swallowing, and of a sense of dryness or tightness with considerable pain after having had to talk for any length of time. The cords were of a light pink color and did not approximate closely, a chink of about three millimetres in width being left on attempted phonation. I ordered a tonic pill of quinia, iron and strychnia, and applied static electricity over the larynx. Subsequently the faradic current was applied to the cords from time to time. The patient continued to take the internal remedies, but only visited me at irregular intervals during the next eleven months, when I find it noted that she had much improved, and was frequently able to speak a few words in a loud voice. Six weeks later, she could talk in an undertone the greater part of the time, and three months afterward she was able to talk aloud all of the time, though not with a very intense voice. At this time the cords were properly approximated during phonation. I noticed in this case that the ventricular bands always closed before the true cords on phonation. Eighteen months after the beginning of treatment she was able to talk aloud.

In this case the aphonia had persisted for six years before the patient came under my care. She was treated on an average of two or three times a month for eleven months before any decided improvement could be observed, then she began to speak a few words at a time in an undertone. I did not see her again for three months, but under the persistent use of comparatively large doses of strychnia (as large as she could take without twitching of the muscles) and small doses of quinia and iron, her voice steadily improved until at the end of eighteen months from the beginning of the treatment, she was pronounced cured.

A NEW OPERATION FOR PROLAPSUS OF THE ANTERIOR VAGINAL WALL.

Read in the Section of Obstetrics and Diseases of Women, at the Forty-first Annual Meeting of the American Medical Association, at Nashville, Tenn., May, 1890.

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With the exception of vesico-vaginal fistula the lesions of the anterior vaginal wall are more or less ignored by the majority of the profession, or if not ignored are considered of less importance than they actually are. Especially is this the case with prolapsus, which may exist alone or in connection with descent of the bladder, uterus, posterior wall or rectum. Prolapse of the vagina does not necessarily signify prolapse of the bladder and rectum, and errors of diagnosis in this direction are frequently made through examinations which are not sufficiently careful. In either case the vaginal lesion demands operative treatment, but the symptoms are usually much more urgent if rectum or bladder has descended than when this is not the case. The vaginal wall is one of the means by which the weight of the bladder is sustained and such portions of the intestines as may be superimposed, and the medium through which the resultant of the forces exerted by the contraction of the abdominal muscles passes. The structures of the pelvic floor may be so disorganized as to be of little value as a means of support, but if the integrity of the anterior wall is preserved the latter may act as an efficient barrier and support for a long time.

The causes which lead to prolapsus of the anterior wall are not limited to the parturient process either directly or indirectly. The lesion may occur in the young and nulliparous in connection with general relaxation of muscular fibre; it may be the consequence of straining at stool in connection with persistent constipation, or it may occur in the aged in connection with general atrophy of the muscular tissue. A prolonged second stage of labor with subsequent imperfect involution may be its efficient cause, or it may occur in women who have had a number of pregnancies in rapid succession, and in whom the conditions of life and health have been such as to preclude complete involution.

It has two types: In one there is atrophy of muscular fibre and diminution in the thickness of the entire structure, there is also protrusion of the bladder and disturbance of its functions, especially in those cases in which there is coexisting cough or constipation. In the other type the mucous membrane of the vagina is thickened and its connective tissue hypertrophied, but there is no protrusion of the bladder, though there may be extensive prolapsus of the vaginal wall.

The object of an operation on this structure is to restore it so that it may accomplish its normal functions. This implies restoration of normal dimen-

sions longitudinally as well as laterally. Operations which have heretofore been devised have tended almost exclusively to contract the wall only in its lateral or transverse dimensions, the old operation of Dieffenbach being the type of such procedures. The vagina is thus made narrower but also somewhat longer, and the great strain which is placed upon a long line of union is not infrequently sufficient to rupture it and restore the former diseased condition in an exaggerated form. The method of Emmet of burying a quantity of undened tissue beneath his line of union seems irrational, for while this tissue may atrophy it may also suffer decomposition. It also imposes a great strain upon a narrow line of union, a strain which it will not bear in all cases, as experience shows.

The operation which is proposed as a substitute for previous methods aims to contract the vaginal wall to a sufficient extent both in length and breadth, and to distribute the tension over two lines of union at right angles to each other. It was demonstrated before the Obstetric Section of the New York Academy of Medicine in January of this year, and on several occasions before the class at the New York Post-Graduate School and Hospital. I have thus far performed it three times, in each case before the class of the last named institution. The conditions differed in every case and in all of them the results have been entirely satisfactory. The operations were performed in December, 1889, January and March, 1890. All the patients have been seen within a few days, and there is as yet no indication in either case that the benefit derived from the operation will not be permanent.

In performing the operation, an elliptical strip of mucous membrane of sufficiently large area is first removed from the anterior wall as in the Dieffenbach and other operations, and then another elliptical strip at right angles to the first, the major axes of the two ellipses intersecting at their middle point. This tissue is best removed with forceps and scalpel, and in favorable cases, the outline of the ellipses having been made by suitable incisions, the tissue can be unrolled or torn off upon a tissue forceps with broad grip. I have had one made for this purpose. In cases in which there is protrusion of the bladder the dissection must be made with great care to avoid wounding that viscus. The hæmorrhage is sometimes considerable, for the bladder wall is very vascular, but it is mostly venous and stops as soon as the wound is closed. Catgut is used in closing the wound, No. 2 or No. 3 being used according to the thickness of the mucous membrane. Continuous sutures are used and they are buried in the connective tissue if that is thick enough to warrant it, otherwise the suture is carried directly from edge to edge of the wound, the needle entering and issuing from the mucous membrane about $\frac{1}{8}$ of an inch from the edge. A

fine slightly curved needle is used about $1\frac{1}{4}$ inch in length. That portion of the wound nearest the cervix is first closed, the suturing being continued as far as the junction of the longitudinal with the transverse ellipse. Then, with another needle and suture, the portion of the wound nearest the meatus urinarius is closed, the suturing being continued as far as the junction of that portion of the longitudinal with the transverse ellipse. Then, in precisely the same manner as before, the transverse segments of the wound are closed, and the two sutures are finally tied together at the middle point of the entire wound. The result is that the vagina is narrowed and also shortened to the desired extent and the tension is evenly distributed over two lines of union which cut each other at right angles in the middle point. The wound may be painted with iodoform colloid or left without any dressing whatsoever. The patient must lie quietly upon her back for a week, and by that time the wound will almost certainly be firmly healed, for the conditions of drainage are all that could be desired, and the vascularity of the parts is ample. If the patient suffers from severe cough the operation should be deferred, for the strain upon the wound induced by coughing may be sufficient to tear out the sutures. In one of my cases the coughing was intense and harassing, but the result has been all that could be desired. I would be unwilling, however, to take such a risk again.

FUNCTIONAL NERVOUS DISEASES OF REFLEX ORIGIN.

Read in the Section of Ophthalmology at the Forty-first Annual Meeting of the American Medical Association, held in Nashville, Tenn., May 21, 1890.

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If one-half that is claimed by Dr. George T. Stevens be true,—viz.: That nearly all headaches, neuralgias, almost all cases of chorea, and 50 per cent. of all cases of epilepsy are due to incoördination of muscles of the eyeball, the subject is one of momentous importance to every general practitioner of medicine, as well as to the surgeon and specialist. That there is a grain of truth in his observations, I have no doubt, but it cannot be separated from the chaff by positive declarations pro and con, without first being investigated by impartial, unprejudiced careful scientific observers.

The position Dr. Stevens occupies in New York is an anomalous one; if I am correctly informed he went there a comparative stranger, a few years since, from Albany where he enjoyed a fair, local special practice. Although he had been a regular contributor to the medical periodicals his reputation was not such as to gain him the